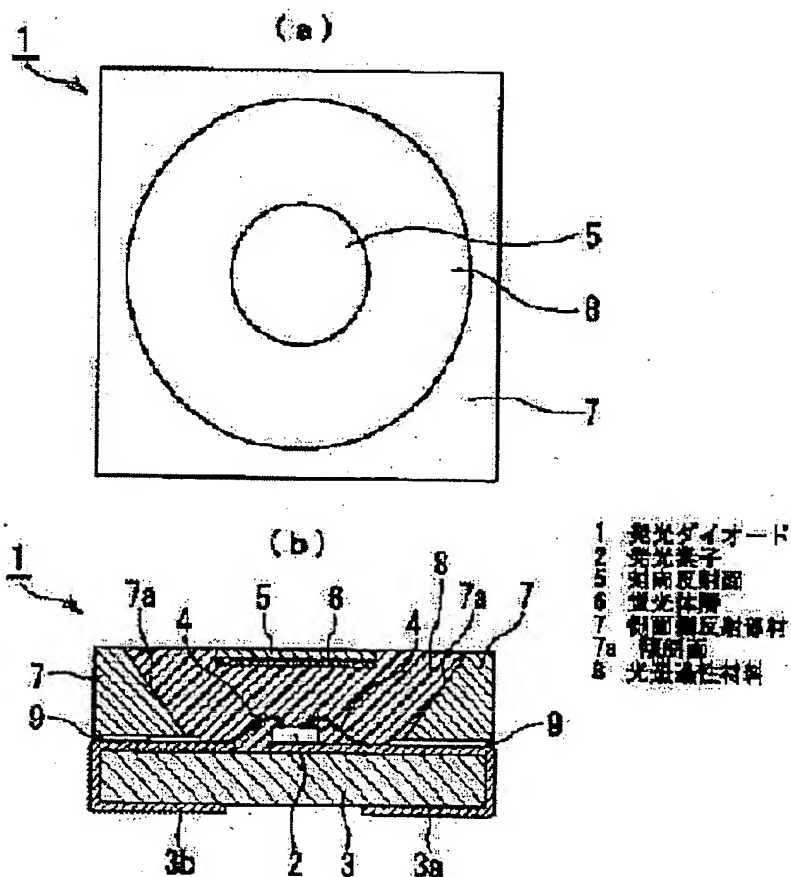


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Search scope: JP (bibliographic data only); Claims, Title or Abstract

Years: 2001-2004

Text: white Assignee/Applicant: "toyoda gosei"



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JP2003298117 (A)  
LIGHT EMITTING DIODE  
TOYODA GOSEI CO LTD

Inventor(s): SUEHIRO YOSHINOBU; MORI HIDEMOTO; TAKASHIMA TATSUYA

Application No. 2002103977 JP2002103977 JP, Filed 20020405, A1 Published 20031017 Published 20031017

**Abstract:** PROBLEM TO BE SOLVED: To provide a light emitting diode, wherein a light emitting element is not brought into close contact with a fluorescent material layer so as to reduce the volume of light that is emitted from the element, returned and absorbed by the element and the volume of excitation light absorbed by the element, and a fluorescent material layer is formed on a reflection material so as to reduce the volume of light that is emitted from the element and absorbed by the fluorescent material layer and the volume of excitation light absorbed by the fluorescent material layer.

**SOLUTION:** A side reflection member 7 formed of an aluminum material is fixed on the outer peripheral part of a glass epoxy board 3 as sandwiching a white ( $\Delta$ ) high-reflection resist 9 between itself and copper foil patterns 3a and 3b. A high-reflection reflecting sloping surface 7a is formed on the inner circumferential surface of the side reflection member 7, and the inside of the side reflection member 7 is filled with a transparent epoxy resin 8 as a light transmitting material. An opposed reflection mirror 5 formed of an aluminum plate serving as a high-reflection reflecting plane is arranged at the center of the inside of the side reflection member 7 as making its high-reflection reflecting plane face downward, and a fluorescent material-mixed resin 6 is applied on all the surface of the reflecting plane to serve as a fluorescent material layer.

**Int'l Class:** H01L03300; H01L02328

**Patents Citing this One:** No US, EP, or WO patents/search reports have cited this patent. **MicroPatent**

**Reference Number:** 001096223

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